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Diane K. Stewart

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EXAMINER

OLSEN, ALLAN W

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DIANE K. STEWART,  
J. DAVID CASEY, JR., JOHN BEATY,  
CHRISTIAN R. MUSIL, STEVEN BERGER,  
SYBREN J. SIJBRANDIJ, and  
JOAN WILLIAMS CASEY

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Appeal 2009-002769  
Application 10/758,966  
Technology Center 1700

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Decided: January 29, 2010

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Before CATHERINE Q. TIMM, LINDA M. GAUDETTE, and  
JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

Appellants request rehearing of the Decision mailed September 22, 2009. Requests for rehearing must comply with 37 C.F.R. § 41.52(a)(1) which specifies in pertinent part that “[t]he request for rehearing must state

with particularity the points believed to have been misapprehended or overlooked by the Board.” We grant Appellants’ Request for Rehearing.

## DISCUSSION

Appellants cogently state their grounds for rehearing as follows:

- A. The Board's Statement of Decision is inconsistent with the body of the opinion.
- B. The Board's rationale for reversing the Examiner's rejection with respect to claims 21 and 22 would also apply to claims 6-9.
- C. The Board's new interpretation of the claim term "substantially unchanged" is not reasonable in light of the Specification.

(Request 2.)

We need only discuss the first and third grounds for rehearing to resolve the dispositive issues.

### *A. Inconsistent Statement of Decision*

As correctly pointed out by Appellants, we incorrectly stated in Section IV of our Opinion that “[w]e sustain the rejection of claims 1-3, 6-8, and 10-12 as anticipated by Musil.” In fact, as clear from our discussion of this rejection in Section II of the Opinion, we did *not* sustain this rejection (Decision 6).

We modify our Decision to correct the inconsistency. We do not sustain the rejection of claims 1-3, 6-8, and 10-12 as anticipated by Musil.

### *C. Interpretation of “Substantially Unchanged”*

We next consider Appellants’ third point, which is directed to our interpretation of the phrase “substantially unchanged” as used in claim 1. It

was necessary for us to interpret this phrase to resolve the issue arising from Appellants' argument against the rejection of claims 1-12 as anticipated by Stewart, i.e. the issue of whether Appellants established that the Examiner reversibly erred in finding that Stewart describes an electron dose such that the thickness of the quartz material is "substantially unchanged" in accordance with claim 1 (Decision 5 and 7).

We had based our interpretation of the phrase "substantially unchanged," in part, on the disclosure in the Specification that removal of 25  $\mu\text{m}$  of quartz was described as a change in thickness, but that removal of less than 10 nm was described as insubstantial (Decision 6, citing Spec. ¶ [1031]).

Appellants contend that paragraph 1031 of their Specification contains a typographical error that went unnoticed during prosecution of the application (Request 4). According to Appellants, 25  $\mu\text{m}$  should be 25 *nm* and this error would have been apparent to the ordinary artisan (Request 4). Appellants' argument is persuasive given that paragraph 1031 is a description of the data in the graph of Figure 2, the units of the graph are in nm, and the difference of the depth at the datapoint of interest is on the scale of about 25 nm, not 25  $\mu\text{m}$  as explained by Appellants (Request 4).<sup>1</sup>

We amend our fact finding on page 6 of the Opinion to refer to 25 *nm* instead of 25  $\mu\text{m}$ . Based on this revised Finding, along with the other Findings, we determine that "substantially unchanged" encompasses changes of more than 10 nm, but less than 25 nm.

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<sup>1</sup> It would be consistent with this Decision to take action to have the typographical error corrected upon return of the Application to the jurisdiction of the Examiner.

Because we can no longer say that “substantially unchanged” encompasses thickness changes as high as 25  $\mu\text{m}$ , we can no longer say that claim 1 encompasses the thickness changes inherently resulting when carrying out the process of Stewart. Stewart uses a gas-assisted electron beam etching step to remove gallium-implanted quartz. Stewart does not disclose the thickness change resulting from removal, but Musil seems to indicate that removal levels of 20-40 nm would be necessary to accomplish Stewart’s goal of removing the gallium ions. While it is possible that removal might result in “substantially unchanged” thicknesses within the scope of the claim, such a possibility is not a “description” within the meaning of § 102. “Inherency . . . may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *Mehl/Biophile Intl Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999) (*quoting In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981)).

We modify our decision with respect to the rejection over Stewart as it was applied to claims 1-3, 6-8, and 10-12. We now do not sustain the rejection of claims 1-3, 6-8, and 10-12 as anticipated by Stewart.

#### DECISION

We grant Appellants’ Request for Rehearing and as a result we do not sustain any of the rejections maintained by the Examiner. In other words, we do not sustain the rejection of claims 1-3, 6-8, 10-12, 21, and 22 as anticipated by Musil, nor do we sustain the rejection of claims 1-12 as anticipated by Stewart.

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Accordingly, the decision of the Examiner is now REVERSED.

REHEARING GRANTED

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